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WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO  
January 1, 1984

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U.S. DEPT. OF AGRICULTURE  
NAT. AG. RES. SERV.  
STATEWIDE ASSESSMENT

Statewide Outlook Colorado: Manual snow surveys conducted the last week of December revealed recordbreaking snowfall for this time of the year. Twenty-two new records were set, each having 10 years of record or more. High elevation snowpack in all major river basins exceeds 180 percent of average. Statewide snowpack currently is 207 percent of average compared to 179 percent of last year. The highest snowpack occurs in the Gunnison river basin at 229 percent of average followed closely by the Arkansas at 224 percent and the Colorado at 222 percent. The lowest snowpack is in the southwest portion of Colorado and is 184 percent of average. Expected spring and summer runoff in all areas should be average to much above average. However, much of the winter is yet to come and any major departures from normal conditions can change the outlook significantly.

An index of the state's major reservoirs indicates current storage is 48 percent above average. This should insure that no shortages would exist if below normal precipitation would occur over the next several months. Soil moisture ranges from fair to good in most areas. The next major snow survey will be conducted at the end of January.

Statewide Outlook New Mexico: Statewide snowpack for the northern mountains currently is 246 percent of average. This compares to 153 percent last year. No new snow course records were set only because most courses do not have at least 10 years of record for this time of year. Low elevation precipitation ranged from over 350 percent for the month at Cuba to a low of 60 percent of average for Albuquerque. Most seasonal totals are near average to twice their average. Streamflow forecasts range from above average to much above average over much of the area. Reservoir storage is 244 percent of average compared to 205 percent of average a year ago. Soil moisture ranges from fair to good in most areas.

BASIN ANALYSIS

Gunnison: Snowpack conditions in the Gunnison basin are well above average. Recent surveys range from a low of 169 percent of normal at Park Reservoir to a high of 386 percent of normal at Park Cone near Taylor Park Reservoir. Reports of precipitation have been consistently above normal for December, with temperatures estimated at near average throughout the watershed. Reservoir conditions are excellent with all of the six major reservoirs reporting above average storage on January 1. The outlook for spring and summer runoff appears to be excellent.



January 1, 1984

Snow Courses	Current Information				Past Record Water Content (Inches)		
	Date of Survey	Snow Depth Inches	Water Content Inches	% of 1961-80 Average	Jan. 1 1961-80 Average	Jan. 1 Last Year	Feb. 1 1961-80 Average
GUNNISON BASIN							
Butte	01/02/84	57	17.0	--	--	4.7	13.3
Idarado	12/29/83	58	14.6	256	5.7*	5.6	9.6*
McClure Pass	12/29/83	54	13.0	245	5.3	6.7	10.6
Mesa Lakes	12/29/83	59	15.8**	239	6.6	13.2	10.5
Park Cone	01/02/84	40	10.8	386	2.8*	2.4	6.6
Park Reservoir	12/29/83	66	18.3	169	8.5*	15.9	15.2
Porphyry Creek	12/29/83	59	16.8**	240	7.0	4.4	11.0
Red Mountain Pass	12/29/83	90	25.4	191	13.3	15.0	19.6
Slumgullion Pass	01/01/84	46	11.9	245	5.3E	5.5	9.1*
COLORADO BASIN							
Arrow	12/30/83	53	13.6	278	4.9*	6.4	8.5
Berthoud Summit	12/29/83	67	16.6**	218	7.6	8.7	11.8
Copper Mountain	12/28/83	60	11.9	238	5.0*	4.8	8.4*
Fremont Pass	12/28/83	63	13.8**	222	6.2	5.5	10.3
Gore Pass	12/28/83	38	8.0	229	3.5*	3.4	7.0
Grizzly Peak	10/29/83	60	14.8	251	5.9*	5.8	11.1
Hoosier Pass	12/23/83	35	8.6	139	6.2*	3.8	8.1
Independence Pass	12/26/83	56	13.9	217	6.4*	5.9	10.1
Lake Irene	12/29/83	63	16.8	202	8.3*	9.5	13.8
Lapland	12/27/83	46	10.1**	289	3.5*	4.3	6.7
Lynx Pass	12/28/83	39	7.3	120	6.1*	4.7	8.0
McClure Pass	12/29/83	54	13.0	245	5.3*	6.7	10.6*
Mesa Lakes	12/29/83	59	15.8**	239	6.6	13.2	10.5
Phantom Valley	12/29/83	43	10.6	241	4.4*	5.5	6.9
Ute Pass	12/28/83	47	11.1	285	3.9*	5.1	7.0*
Vail Mountain	12/29/83	90	20.8E	229	9.1*	10.2	14.4*
Willow Creek Pass	12/29/83	40	9.5	206	4.6*	6.3	8.1
SOUTH PLATTE BASIN							
Bear Lake	12/28/83	55	13.2	236	5.6*	5.1	10.3*
Berthoud Summit	12/29/83	67	16.6**	218	7.6	8.7	11.8
Boulder Falls	12/31/83	42	12.0	285	4.2*	4.6	7.7
Cameron Pass	12/30/83	70	20.0**	198	10.1*	13.9	17.7
Copeland Lake	12/31/83	27	6.5	500	1.3*	1.0	3.3
Grizzly Peak	10/29/83	60	14.8	251	5.9*	5.8	11.1
Hoosier Pass	12/23/83	35	8.6	139	6.2*	3.8	8.1
Joe Wright	12/30/83	69	19.2**	190	10.0*	13.5	15.8*
Lake Eldora	12/28/83	47	11.3	231	4.9*	4.8	6.9*
Lake Irene	12/29/83	63	16.8	202	8.3*	9.5	13.8
Niwot	12/28/83	48	12.6	350	3.6*	3.6	5.3*
Two Mile	01/01/84	43	11.2	178	6.3	3.5	9.1
University Camp	12/31/83	52	14.6**	212	6.9	5.4	10.8
Willow Park	01/01/84	57	11.5	142	8.1*	7.3	11.9*

\* Less than 15years of record.

N/A = Not available at time of publication.

E = Estimated from SNOTEL.

\*\* New maximum on record.





January 1, 1984

Snow Courses	Current Information				Past Record		
	Date of Survey	Snow Depth Inches	Water Content Inches	% of 1961-80 Average	Water Content (Inches) Jan. 1 1961-80 Average	Jan. 1 Last Year	Feb. 1 1961-80 Average
YAMPA-WHITE-NORTH PLATTE BASIN							
Cameron Pass	12/30/83	70	20.0**	198	10.1*	13.9	17.7
Columbine Lodge	12/30/83	64	18.5**	210	8.8	8.5	15.3
Dry Lake	12/30/83	63	17.7**	203	8.7*	9.2	12.5
Lynx Pass	12/28/83	39	7.3	120	6.1*	4.7	8.0
Rabbit Ears	12/30/83	80	23.6**	200	11.8	14.5	16.3
Willow Creek Pass	12/29/83	40	9.5	206	4.6*	6.3	8.1
ARKANSAS BASIN							
Apishapa	12/30/83	23	4.5	118	3.8*	4.9	5.2
Brumley	12/29/83	42	10.6	303	3.5*	3.4	6.4*
Fremont Pass	12/28/83	63	13.8**	223	6.2	5.5	10.3
LaVeta Pass	12/29/83	40	9.8	--	--	4.9	7.4*
Porphyry Creek	12/29/83	59	16.8**	240	7.0	4.4	11.0
Tennessee Pass	12/29/83	38	8.2**	200	4.1	3.4	6.6
Twin Lakes Tunnel	12/26/83	44	10.4	253	4.1*	4.8	6.4
RIO GRANDE, COLORADO BASIN							
Cumbres Trestle	12/28/83	90	24.7	227	10.9*	14.0	16.4*
LaVeta Pass	12/29/83	40	9.8	--	--	4.9	7.4*
Red Mountain Pass	12/29/83	90	25.4**	191	13.3	15.0	19.6
Wolf Creek Pass	12/30/83	72	21.4	175	12.2	18.3	18.5
Wolf Creek Summit	12/30/83	72	21.0	158	13.3	20.0	19.2
RIO GRANDE, NEW MEXICO BASIN							
Chamita	12/28/83	44	9.1	479	1.9*	4.5	6.2
Cumbres Trestle	12/28/83	90	24.7	227	10.9*	14.0	16.4*
Gallegos Peak	12/28/83	51	10.8	360	3.0*	4.6	5.7*
Hopewell	12/30/83	61	16.2	274	5.9*	10.5	10.7*
North Costilla	12/29/83	17	2.3	105	2.2*	2.5	3.5*
Panchuela	12/30/83	18	4.0	222	1.8*	3.3	3.1
Quemazon	12/27/83	22	4.1	128	3.2*	7.0	6.1
Red River Pass	12/28/83	23	4.1	132	3.1*	4.2	4.4
Senorita Divide	01/03/83	38	9.9	366	2.7*	5.2	5.8*
SAN MIGUEL, DOLORES, ANIMAS, SAN JUAN BASIN							
Cascade	12/30/83	44	13.6**	234	5.8*	7.6	9.1
Lizard Head	12/29/83	58	12.6	153	8.3*	8.0	11.1
Mineral Creek	12/29/83	53	13.7**	204	6.7*	7.5	10.4
Red Mountain Pass	12/29/83	90	25.4**	191	13.3	15.0	19.6
Spud Mountain	12/30/83	67	18.5**	171	10.8	14.8	15.9
Upper San Juan	12/30/83	88	24.6	185	13.3	19.7	20.5
Wolf Creek Summit	12/30/83	72	21.0	158	13.3	20.0	19.2

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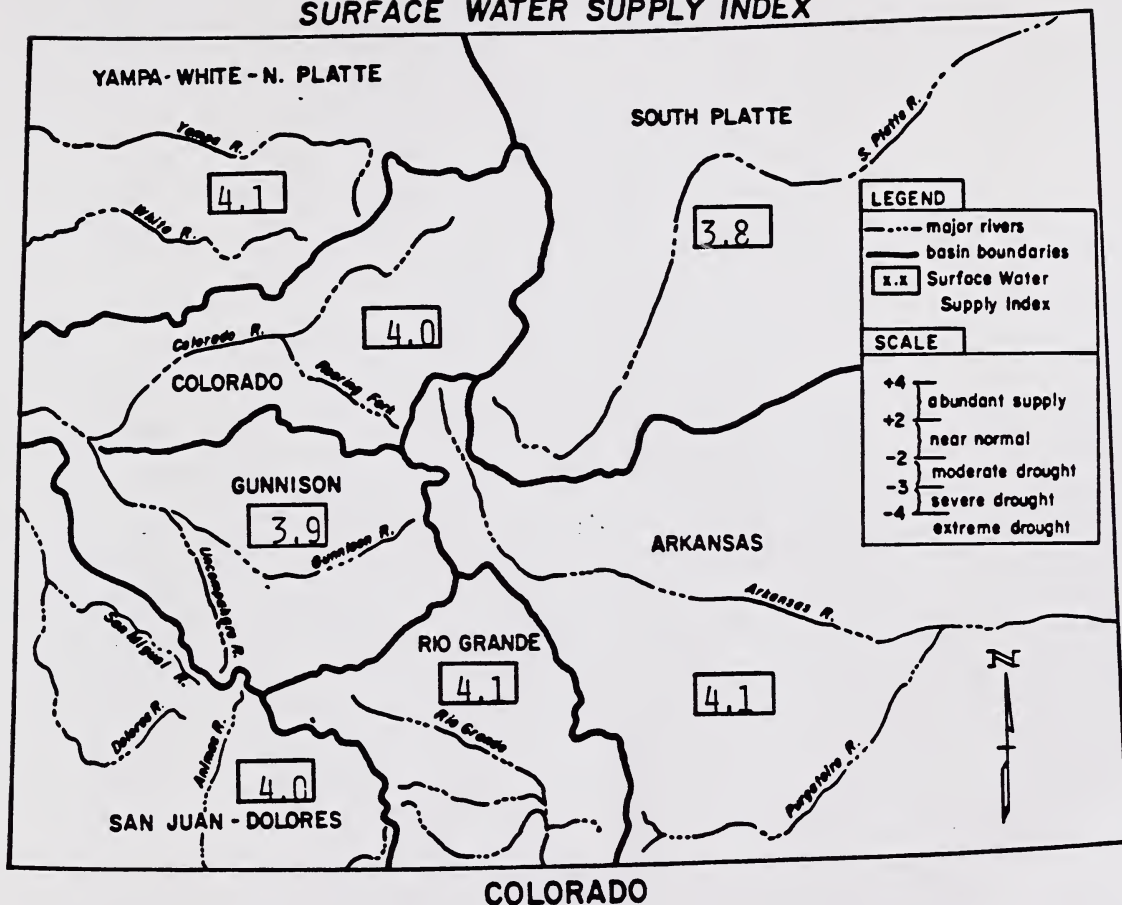




# PRELIMINARY

Date: JANUARY 1, 1984

## SURFACE WATER SUPPLY INDEX



The Surface Water Supply Index (SWSI) is a weighted value derived for each major basin which generally expresses the potential availability of the forthcoming season's water supply. The components used in computing the index are reservoir storage, snowpack water equivalent, and precipitation. The SWSI number for each basin ranges from a -4.00 (prospective water supplies extremely poor) to a +4.00 (prospective water supplies plentiful). The SWSI number is only a general indicator of surface water supply conditions. Further data analyses may be required in specific situations to more fully understand the impacts of abnormally dry or wet conditions suggested by the SWSI. Development of the SWSI has been a cooperative effort between the Colorado State Engineers' Office and the Soil Conservation Service.

**U. S. DEPARTMENT OF AGRICULTURE**

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